Docket Number (Optional) KYRA-420	Application Number NEW
Applicant(s)	
Mark Brunkhart et al.	
Filing Date	Group Art Unit
HEREWITH	Unknown

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
PN	*AA	4,658,218	04/14/1987	Kenney-Wallace et al.	330	4.3	12/10/1984
	*AB	4,860,304	08/22/1989	Mooradian	372	92	02/02/1988
	*AC	4,907,586	03/13/1990	Bille et al.	606	5	03/31/1998
	*AD	4,928,152	05/22/1990	Gerardin	356	5	02/24/1987
	*AE	5,006,721	04/09/1991	Cameron et al.	250	561	03/23/1990
	*AF	5,110,203	05/05/1992	MacCabee	356	5	08/28/1991
	*AG	5,114,226	05/19/1992	Goodwin et al.	356	5	09/28/1990
	*AH	5,132,977	07/21/1992	Zayhowski et al.	· 372	10	11/29/1990
	*AI	5,337,149	08/09/1994	Kozah et al.	356	376	11/12/1992
	*AJ	5,381,431	01/10/1995	Zayhowski	372	25	08/13/1993
	*AK	5,386,427	01/31/1995	Zayhowski	372	34	02/10/1994
	*AL	5,394,413	02/28/1995	Zayhowski	372	10	03/04/1994
	*AM	5,531,520	07/02/1996	Grimson et al.	382	131	09/01/1994
	*AN	5,606,409	02/25/1997	Schneiter	356	4.02	12/17/1994
	*A0	5,623,335	04/22/1997	Bamberger	356	5.01	05/04/1995
	*AP	5,638,163	06/10/1997	Nourreier, Jr.	356	5.01	06/07/1995
	*AQ	5,638,164	06/10/1997	Landau	356	5.01	08/09/1995
89/	*AR	5,719,664	02/17/1998	Besesty et al.	356	5.01	10/03/1995

FOREIGN PATENT DOCUMENTS

	T	DOCUMENT	T				TRANSLATION	
	REF	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
PN	*AS	57004564	01/11/1982	Japan (abstract)	6018	7/48-		
	*AT	62108172	05/19/1987	Japan (abstract)	G 01S	7/48		
	*AU	DE 41 09 844 C1	03/26/1991	Germany	G918-	17/10		
1	*AV	2 662 244	11/22/1991	France	GOIB	11/26		
1	*AW	06188501	07/08/1994	Japan (abstract)	HOIS	3/11		
PV	*AX	GB 2 292 605 A	02/28/1996	United Kingdom	G01B	11/24		

OTHER DOCUMENTS

PN	*AY	C. Bradley et al., "Free-form Surface Reconstruction for Machine Vision Rapid Prototyping," Optical Engineering, September 1993, Vol. 32, No. 9, pp. 2191-2200.
	*AZ	C-W. Liao et al., "Surface Approximation of a Cloud of 3D Points," Graphical Models and Image Processing, January 1995, Vol. 57, No. 1, pp. 67-74.
	*BA	A.B. Dobrzeniecki et al., "Interactive and Intuitive Segmentation of Volumetric Data: The Segmentview System and the Kooshball Algorithm," Institute of Electrical and Electronics Engineers, Proceedings of the International Conference on Image Processing (ICIP), October 23, 1995, Vol. 3, pp. 540-543.
	*BB	J.H. Park et al., "Three-Dimensional Object Representation and Recognition Based on Surface Normal Images," Pattern Recognition, June 1993, Vol. 26, No. 6, pp. 913-921.
PN *BC		P.F. Hernler et al., "Active Model Matching in Range Images," IEEE International Conference on Robotics and Automation, March 31, 1987, Vol. 1, pp. 228-233.

Examiner	P. Ngvyer	Date Considered	9/1/05					
	Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if							
not in conformance and not considered. Include copy of this form with next communication to applicant.								

Docket Number (Optional)	Application Number	
KYRA 412 US5	NEW	
Applicant(s)		
Mark Brunkhart et al.		_
Filing Date	Group Art Unit	
HEREWITH	Unknown	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	Ref	DOCUMENT NUMBER	DATE	Name	CLASS	SUBCLASS	FILING DATE
	BD						
	BE						

FOREIGN PATENT DOCUMENTS

1	<u> </u>	DOCUMENT	T				TRANS	LATION
	REF	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
	 BF						L	
	BG							

OTHER DOCUMENTS

	•
*BH	N.S. Raja et al., "Obtaining Generic Parts from Range Images Using a Multi-view Representation," <i>Image Understanding</i> , July 1994, Vol. 60, No. 1, pp. 44-64.
*01	S. Tamura et al., "Error Correction in Laser Scanner Three-Dimensional Measurement by Two-Axis Model and Coarse-
' BI	
	Fine Parameter Search," Pattern Recognition, March 1994, Vol., 27, No. 3, pp. 331-338.
•BJ	T. Kanade et al., "A Very Fast VLSI Rangefinder," Proceedings of the 1991 IEEE International Conference on Robotics
	and Automation, Sacramento, California, April 1991, pp. 1322-1329.
*BK	J.D. Spinhirne, "Micro Pulse Lidar," IEEE Transactions on Geoscience and Remote Sensing, January 1993, Vol. 31, No. 1,
L	pp. 48-55.
*BL	S.G. Nadabar et al., "Fusion of Range and Intensity Images on a Connection Machine (CM-2)," Pattern Recognition,
	January 1995, Vol. 28, No. 1, pp. 11-26.
*BM	K. Nakazawa et al., "Development of 3-D Robot Vision Sensor with Fiber Grating," IECON '91, 1991 International
	Conference on Industrial Electronics, Control and Instrumentation, October 28, 1991, Vol. 3, pp. 2368-2372.
*BN	E.S. Cameron et al., "The Design and Manufacture of a High-Resolution Laser Radar Scanner," SPIE Laser Radar IV,
	Vol. 1103, 1989, pp. 190-197.
*BO	T.C. Strand, "Optical three-dimensional sensing for machine vision," Optical Engineering, Vol. 24, No. 1,
	January/February 1995, pp. 33-40.
*BP	S-Y. Lu et al., "A New True 3-D Motion Camera System from Lawrence Livermore," Advanced Imaging, July 1995,
	pp. 51 & 54.
*BO	N. Woodbury et al. "Noninvasive Tank Gauging With Frequency-Modulated Laser Ranging," Sensors, September 1993,
-	pp. 27-31.
*BR	Brochure by Azimuth, "Laser Ranging Systems," including Product Description "LRY-750E," 3/96, 10 pages in length.
	Brochure by Automated Precision, Inc., "Precision Measurement and Sensing Instruments for Manufacturing," 1996,
20	pp. front cover, 1-15 & back cover.
*RT	D.S. Schwartz, "Vision Metrology System: An Automated Noncontact Three-Dimensional Measurement System," General
٠.	Dynamics Corporation, Copyright 1989, 7 pages in length.
*BII	Brochure by John E. Chance & Associates, Inc., "TruckMap," May 1994, 2 pages in length.
	D. Knopp, "Megamodels from MicroStation – Photography Goes 3D," MicroStation Manager, August 1994, pp. 60-63.
	M. Laasonen, "Surveying and Data Processing in Building Renovation," Surveying Science in Finland, Vol. 11, No. 1-2,
DW	
ADV	1993, pp. 3-14, reformatted pp. 1-7. A.J. Mäkynen et al., "Tracking Laser Radar for 3-D Shape Measurements of Large Industrial Objects Based on Time-of-
, RY	
l	Flight Laser Rangefinding and Position-Sensitive Detection Techniques," IEEE Transactions on Instrumentation and
L	Measurement, Vol. 43, No. 1, February 1994, pp. 40-49.
	*BI *BJ *BK *BL *BM *BN

Examiner	P. Nguyer	Date Considered .	9/1/05				
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if							
not in conformance and not considered. Include copy of this form with next communication to applicant.							

Docket Number (Optional) KYRA 412 US5	Application Number NEW	
Applicant(s)		
Mark Brunkhart et al.		
Filing Date	Group Art Unit	
HEREWITH	Unknown	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME .	CLASS	SUBCLASS	FILING DATE
	BY			·			
	BZ				<u> </u>	L	

FOREIGN PATENT DOCUMENTS

 	DOCUMENT					TRA	NSLATION
REF	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
CA							
CB						<u> </u>	

OTHER DOCUMENTS

PN	*CC	T.T. Wohlers, "3D Digitizers," Computer Graphics World, July 1992, pp. 73-77.
	*CD	T. Wohlers, "The Challenge of 3D Digitizing," Computer Graphics World, November 1995, pp. 21-22.
	*CE	T Wohlers, "3D Digitizing Systems," Computer Graphics World, April 1994, pp. 59-61.
1	*CF	K. Määttä et al., "Profiling of hot surfaces by pulsed time-of-flight laser range finder techniques," Applied Optics, Vol. 32, No. 27, 20 September 1993, pp. 5334-5347.
1	*CG	R.E. Garrett. "Advanced Technology for Blasters," Rock Products, January 1996, pp. 37-42.
	*CH	Brochure by IBEO Systems, Inc., "Information on the LADAR Scanning System," IBEO Systems, October 13, 1994, 20 pages in length.
	*CI	"Application Notes." Issue 2, IBEO Systems, Inc., September 1993, 6 pages in length.
	*CJ	Article by W. Niemeier et al., "Use of Laser Scanners for the Determination of Building Geometries," December 1995,
	*CK	I. Kaisto et al., "Laser radar based measuring systems for large scale assembly application," SPIE, Vol. 2088, 1994, pp. 121-131.
	*CL	R.J. Pinheiro et al., "Laser Range Image Interpretation for Automated Mapping of Hazardous Environments," 1995.
	*CM	H. Aillsto et al., "Applications of Laser Radar," Sensor Review, Vol. 13, No. 1, 1993, pp. 26-28.
	*CN	Brochure by CATCO, "Laser Mapping System," January 1996, 27 pages in length.
	*co	M.H. Tulloch, "Laser Rangefinder/Speed Guns Find New Uses," Photonics Spectra, July 1992, one page in length.
1	*CP	Brochure by Laser Atlanta, "Prosurvey 1000 and Geolink Mapping Systems," July 1992, 10 pages in length.
	*co	B. Simon et al., "Capturing Surface Data," DesignNet, March 1992, one page in length.
	*CR	Brochure by Perceptron, "Simultaneous 2-D and 3-D images from a single general-purpose camera!," May 1995, 5 pages length.
	*CS	S. Ball, "Autoscanning Laser Systems a Valuable Tool," September 1996, 2 pages in length.
	*CT	C. Bradley et al., "Free-form surface reconstruction for machine vision rapid prototyping," Optical Engineering, Vol. 32, No. 9. September 1993, pp. 2191-2200.
	*CU	P. Vähä et al., "Application of 3-D CAD and 3-D Coordinate Meter in Frame Erection," Automation and Robotics in Construction X, Elsevier Science Publishers B.V., 1993, pp. 487-494.
1	+CV	"Take a Photo, Create a Model," Computer Graphics World, May 1994, pp. 58-59.
	*CW	I. Kaisto et al., "Laser Rangefinding Techniques in the Sensing of 3-D Objects," SPIE, Vol. 1260, Sensing and Reconstruction of Three-Dimensional Objects and Scenes, 1990, pp. 122-133.
	*CX	B. Turko, "A Picosecond Resolution Time Digitizer for Laser Ranging," <i>IEEE Transactions on Nuclear Science</i> , Vol. NS-25, No. 1, February 1978, pp. 75-80.
PN	*CY	K.W. Wong et al., "GPS-Guided Vision Systems for Real-Time Surveying," Journal of Surveying Engineering, Vol. 115, No. 2, May 1989, pp. 243-251.

Examiner	P. Nguyen	Date Considered	9/1/05						
Examiner: Initia	ol if citation considered, whether or not citation are and not considered. Include copy of this f	Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Docket Number (Optional) KYRA 412 US5	Application Number NEW	
Applicant(s)		
Mark Brunkhart et al.		
Filing Date	Group Art Unit	
HEREWITH	Unknown	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	Name	CLASS	SUBCLASS	FILING DATE
	CZ						
	DA						

FOREIGN PATENT DOCUMENTS

1	•	DOCUMENT					TRANS	LATION
	Ref	Number	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
ı	DB							
	DC							

OTHER DOCUMENTS

PN)	*DD	R.R. Clark et al., "A Laser Distance Measurement Sensor for Industry and Robotics," Sensors, June 1994, pp. 43-45 and 47.
-1	*DE	Brochure, Photo Modeler, EOS System, 1995, 2 pages in length.
	*DF	Brochure, Kreon, 1995, 7 pages in length.
	*DG	Brochure, Spatial Positioning Systems, Inc. (SPI), 1996, 4 pages in length.
	*DH	Brochure, Bechtel Corp., 1993, 4 pages in length.
	*DI	Brochure, Micro Scan 3D, Cyber Optics Corp., 1995, 1 page in length.
	*DJ	Advertisement, "MDL's Quarryman ALS," ACSM Bulletin, July/August 1996, p. 36.
	*DK	Brochure, "On-line 3-D Measuring Systems," Mapvision II, date unknown, 4 pages in length.
	*DL	Brochure, "TV Auto-Scanning Laser System (TV-ALS)," MDL Technologies, Inc., date unknown, 4 pages in length.
	*DM	Brochure, "Surveyor ALS (Auto Scanning Laser System)," MDL Technologies, Inc., date unknown, 3 pages in length.
	*DN	M. Scherer, "Uni-Scan: A System for Automatic Architectural Surveying," date unknown, pp. 285-284c.
	*DO	Brochure, "Cyberware Color 3D Digitizer," date unknown, 7 pages in length.
	*DP	Brochure, "3D Laser Digitizing Systems," Laser Design, Inc., date unknown, 5 pages in length.
	*DQ	Brochure, "Access problems? Prism Problems? Gota do it fast?," Cubic Precision, date unknown, 5 pages in length.
	*DR	F.J.M. Schmitt et al., "An Adaptive Subdivision Method for Surface-Fitting from Sampled Data," ACM-SIGGRAPH 1986, pp. 179-188.
PU	*DS	J.D. Foley et al., "Computer Graphics - Principles and Practice," Addison-Wesley Publishing Company, 1996, pp. 471-531.

Examiner	P. Nguzer	Date Considered	9/1/05
	Initial if citation considered, whether or not citation is in rmance and not considered. Include copy of this form w		

Docket Number (Optional) KYRA-420 INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Mark Brunkhart et al. Filing Date HEREWITH Group Art Unit Unknown

MAY 2 7 2005 8

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT PRADE	NECT PE	Name	CLASS	SUBCLASS	FILING DATE
	*AA	4,658,218	04/14/1987	Kenney-Wallace et al.	330	4.3	12/10/1984
·	*AB	4,860,304	08/22/1989	Mooradian -	372	92	02/02/1988
	*AC	4,907,586	03/13/1990	Bille et al.	· 606	5	03/31/1998
	*AD	4,928,152	05/22/1990	Gerardi n	356	5	02/24/1987
	*AE-	5,006,721	04/09/1991	Cameron et al.	250	561	03/23/1990
	*AF	5,110,203	05/05/1992	-MacCabce -	356	5	08/28/1991
	*AG	5,114,226	05/19/1992	Goodwin et al.	356	5	09/28/1990
	*AH	5,132,977	07/21/1992	Zayhowski et-al	372	10	11/29/1990
	*AJ	5,337,149	08/09/1994	Kozah et al.	356	376	11/12/1992
	+AJ	5,381,431	01/10/1995	- Zayhowski -	372	25	08/13/1993
	*AK	-5,386,427	01/31/1995	Zayhowski	372	34	02/10/1994
	*AL	-5,394,413	02/28/1995	Zayhowski	372	10	03/04/1994
•	*AM	-5,531,520	07/02/1996	Grimson et al.	382	131	09/01/1994
	*AN_	5,606,409	02/25/1997	Schneiter	·356	4.02	12/17/1994
	*A0	5,623,335	04/22/1997	Bamberger	356	5.01	05/04/1995
	*AP	5, 638,163	06/10/1997	Nourreier, Jr.	356	5.01	06/07/1995
	*AQ-	5,638,164	06/10/1997	Landau	356	5.01	08/09/1995
	*AR-	5,719,664	02/17/1998	Besesty et al.	356	5.01	10/03/1995

FOREIGN PATENT DOCUMENTS

	DOCUMENT					TR	NSLATION
Ref	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
*AS	57004564	01/11/1982	Japan (abstract)	G01S	7/48		
*AT	62108172	03/19/1987	Japan (abstract)	G01S	7/48		
 *AU -	DE 41-09-844-C1	03/26/1991	Germany \	G01S	17/10		
 *AV	2 662 244	11/22/1991	France \	G01B	11/26		1
 *AW	06188501	07/08/1994	Japan (abstract)	H01S	3/11		
*AX	GB 2 292 605 A	02/28/1996	United Kingdom	G01B	11/24		

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

*AY_	C. Bradley et al., "Free-form Surface Reconstruction for Machine Vision Rapid Prototyping," Optical Engineering, September 1993, Vol. 32, No. 9, pp. 2191-2200.
*AZ	C-W-Liao et al., "Surface Approximation of a Cloud of 3D Points," Graphical Models and Image Processing, January 1995, Vol. 57, No. 1, pp. 67-74.
*BA	A.B. Dobrzenlecki et al., "Interactive and Intuitive Segmentation of Volumetric Data: The Segmentview System and the Kooshball Algorithm," Institute of Electrical and Electronics Engineers, Proceedings of the International Conference on Image Processing (ICIP); October 23, 1995, Vol. 3, pp. 540-543:
*BB	J.H. Park et al., "Three-Dimensional Object Representation and Recognition Based on Surface Normal Images," Pattern Recognition, June 1993, Vol. 26, No. 6, pp. 913-921.
*BC	P.F. Hemler et al., "Active Model Matching in Range Images," IEEE International Conference on Robotics and Automation, March 31, 1987, Vol. 1, pp. 228-233.

			· · · · · · · · · · · · · · · · · · ·
Examiner	P. Nguya	Date Considered	9/1/05
Examiner:	Initial if citation considered, whether or not citation is in co	nformance with MPEP Section	609: Draw line through citation if

not in conformance and not considered. Include copy of this form with next communication to applicant.

COP Theet 1 of 4

Docket Number (Optional) KYRA 412 US5	Application Number NEW	
Applicant(s) Mark Brunkhart et al.		
Filing Date	Group Art Unit	
HEREWITH	Unknown	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	Ref	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	BD						
	BE					1	

FOREIGN PATENT DOCUMENTS

		DOCUMENT .					TRANS	LATION
Ì	REF	Number	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
	BF							
	BG							_

OTHER DOCUMENTS

	,	
	*BH	N.S. Raja et al., "Obtaining Generic Parts from Range Images Using a Multi-view Representation," Image Understanding,
		-Jul y 1994, Vol. 60, No. 1, pp. 44-64 .
•	•BI ·	-S. Tamura et al., "Error Correction in Laser Scanner Three-Dimensional Measurement by Two-Axis Model and Coarse-
	_	Fine Parameter-Search," Pattern Recognition, March 1994, Vol., 27, No. 3, pp. 331-338.
	*BJ	T-Kanade et al., "A Very Fast VLSI Rangefinder," Proceedings of the 1991 IEEE International Conference on Robotics
		-dnd Automation, Sacramento, California, April 1991, pp. 1322-1329.
	*BK	J.D. Spinhime, "Micro Pulse Lidar," IEEE Transactions on Geoscience and Remote Sensing, January 1993, Vol. 31, No. 1,
		- pp. 48-55:
	*BL	S.G. Nadabar et al., "Fusion of Range and Intensity Images on a Connection Machine (CM-2)," Pattern Recognition,
		January 1995, Vol. 28, No. 1, pp. 11-26 ₃
	*BM	K. Nakazawa et al., "Development of 3-D Robot Vision Sensor with Fiber Grating," IECON '91, 1991 International
		Conference on Industrial Electronics, Control and Instrumentation, October 28, 1991, Vol. 3, pp. 2368-2372.
	*BN	E.S. Cameron et al., "The Design and Manufacture of a High-Resolution Laser Radar Scanner," SPIE Laser Radar IV,
1		Vol. 1103, 1989, pp. 190-197
	*BO	T.C. Strand, "Optical three-dimensional sensing for machine vision," Optical Engineering, Vol. 24, No. 1,
·	j	January/February 1995, pp. 33-40.
	*BP	S-Y. Lu-ct al., "A New True 3-D Motion Camera System from Lawrence Livermore," Advanced Imaging, July 1995,
		pp. 51 & 54.
	*BQ	N. Woodbury et al. "Noninvasive Tank Gauging With Frequency-Modulated Laser Ranging," Sensors, September 1993,
		
	*BR	Brochure by Azimuth, "Leser Ranging Systems," including Product Description "LRY 750E," 3/96, 10 pages in length.
	*BS	Brochure by Automated Precision, Inc., "Precision Measurement and Sensing Instruments for Manufacturing," 1996,
	1	pp. front cover, 1-15 & back cover.
	*BT	D.S. Schwartz, "Vision Metrology System: An Automated Noncontact Three-Dimensional Measurement System," General
l		Dynamics Corporation, Copyright 1989, 7 pages in length.
	*BU	Brochure by John E. Chance & Associates, Inc., "TruckMap," May 1994, 2 pages in length:
	*BV	D. Knopp, "Megamodels from MicroStation - Photography Goes 3D," MicroStation Manager, August 1994, pp. 60-63.
	*BW	M. Lazsonen, "Surveying and Data Processing in Building Renovation," Surveying Science in Finland, Vol. 11, No. 1-2,
		1993, pp. 3-14, reformatted pp. 1-7.
	*BX	A.J. Mäkynen et al., "Tracking Laser Radar for 3-D Shape Measurements of Large Industrial Objects Based on Time-of-
	1	Flight Laser Rangefunding and Position-Sensitive Detection Techniques," IEEE Transactions on Instrumentation and
1		Measurement, Vol. 43, No. 1, February 1994, pp. 40-49.
		

Examiner	P. Ngy	Date Considered	9/1/03
Examiner:	Initial if citation considered, whether or not citation is in c	onformance with MPEP Sec	tion 609; Draw line through citation if
not in confe	ormance and not considered. Include copy of this form wit	h next communication to app	plicant.



Docket Number (Optional)	Application Number NEW	
KYRA 412 US5	NEW	
Applicant(s)		
Mark Brunkhart et al.		
Filing Date	Group Art Unit	
HEREWITH	Unknown	

U.S. PATENT DOCUMENTS

*Examiner Initial	Rep	DOCUMENT NUMBER	DATE	Name	CLASS	Subclass	FILING DATE
	BY						
	BZ						

FOREIGN PATENT DOCUMENTS

1		DOCUMENT					TRANS	LATION
	 Ref	Number	DATE	COUNTRY	CLASS	SUBCLASS	YES	No
	CA	•						
1	CB	•	-					

OTHER DOCUMENTS

*CC	T.T. Wohlers, "3D Digitizers," Computer Graphics World, July 1992, pp. 73-77.
*CD	T. Wohlers, "The Challenge of 3D Digitizing," Computer Graphics World, November 1995, pp. 21-22.
*CE	T. Wohlers, "3D Digitizing Systems," Computer Graphies World, April 1994, pp. 59-61-
*CF —	K. Määttä et al., "Profiling of hot surfaces by pulsed time-of-flight laser range finder techniques," Applied Optics, Vol. 32, No. 27, 20 September 1993, pp. 5334-5347.
*CG -	R.E. Garrett, "Advanced Technology for Blasters," Rock Products, January 1996, pp. 37-42.
*CH -	Brochure by IBEO Systems, Inc., "Information on the LADAR Scanning System," IBEO Systems, October 13, 1994, 20 pages in length.
 *CI	"Application Notes," Issue 2, IBEO Systems, Inc., September 1993, 6 pages in length.
*CJ -	Article by W. Niemeier et al., "Use of Laser Scanners for the Determination of Building Geometries," December 1995, pp. 275-284e.
*CK	1. Kaisto et al., "Laser radar based measuring systems for large scale assembly application," SPIE, Vol. 2088, 1994, pp. 121-131.
*CL	R.J. Pinheiro et al., "Laser Range Image Interpretation for Automated Mapping of Hazardous Environments," 1995.
 *CM	H. Aillsto et al., "Applications of Laser Radar," Sensor Review, Vol. 13, No. 1, 1993, pp. 26-28.
 *CN	Brochure by CATCO, "Laser Mapping System," January 1996, 27 pages in length.
*co	M.H. Tulloch, "Laser Rangefinder/Speed Guns Find New Uses," Photonics Spectra, July 1992, one page in length.
*CP	Brochure by Laser Atlanta, "Prosurvey 1000 and Geolink Mapping Systems," July 1992, 10 pages in length.
*CQ	B. Simon et al., "Capturing Surface Data," DesignNet, March 1992, one page in length.
*CR -	Brochure by Perceptron, "Simultaneous 2-D and 3-D images from a single general-purpose camera!," May 1995, 5 pages in length
*CS-	S. Ball, "Autoscanning Laser Systems a Valuable Tool," September 1996, 2 pages in length.
*CT	C. Bradley et al., "Free-form surface reconstruction for machine vision rapid prototyping," Optical Engineering, Vol. 32, No. 9, September 1993, pp. 2191-2200.
*CU_	P. Vähä et al., "Application of 3-D CAD and 3-D Coordinate Meter in Frame Erection," Automation and Robotics in. Construction X, Elsevier Science Publishers B.V., 1993, pp. 487-494.
*CV	"Take a Photo, Create a Model," Computer Graphics World, May 1994, pp. 58-59.
*CW_	I. Kaisto et al., "Laser Rangefinding Techniques in the Sensing of 3-D Objects," SPIE, Vol. 1260, Sensing and Reconstruction of Three-Dimensional Objects and Scenes, 1990, pp. 122-133.
 *CX _	B. Turko, "A Picosecond Resolution Time Digitizer for Leser Ranging," IEEE Transactions on Nuclear Science, Vol. NS-25, No. 1, February 1978, pp. 75-80.
*CY	K.W. Wong et al., "GPS-Guided Vision Systems for Real-Time Surveying," Journal of Surveying Engineering, Vol. 115, No. 2, May 1989, pp. 243-251.

Examiner	. P.	Ngyen	Date Considered	9/1/03	
Examiner: Initia	l if citation considered, w	hether or not citation is	in conformance with MPEP	Section 609; Draw line t	hrough citation if
not in conforman	ce and not considered. In	clude copy of this form	with next communication to	applicant.	



Docket Number (Optional) KYRA 412 US5	Application Number NEW		
Applicant(s) Mark Brunkhart et al.	•		
Filing Date HEREWITH	Group Art Unit		

U.S. PATENT DOCUMENTS

*Examiner Initial	REF	DOCUMENT NUMBER	DATE	Name	CLASS	SUBCLASS	FILING DATE
	CZ						•
	DA			·			

FOREIGN PATENT DOCUMENTS

ſ	•	DOCUMENT				TRANSLATION		
1	 Ref	Number	DATE	COUNTRY .	CLASS	SUBCLASS	YES	No
. [DB							
Γ	DC							

OTHER DOCUMENTS

*DD	R.R. Clark et al., "A Laser Distance Measurement Sensor for Industry and Robotics," Sensors, June 1994, pp. 43-45 and 47.
*DE	Brochure, Photo Modeler, EOS System, 1995, 2 pages in length.
*DF	Brochure, Kreon, 1995, 7 pages in length.
*DG	Brochure, Spatial Positioning Systems, Inc. (SPI), 1996, 4 pages in length-
*DH	Brochure, Beehtel Corp., 1993, 4 pages in length.
*DI	Brochure, Micro Scan 3D, CyberOptics Corp., 1995, 1 page in length.
*DJ	Advertisement, "MDL's Quarryman ALS," ACSM Bulletin, July/August 1996, p. 36.
*DK	Brochure, "On-line 3-D Measuring Systems," Mapvision II, date unknown, 4 pages in length.
*DL	Brochure, "TV Auto-Scanning Laser System (TV-ALS)," MDL Technologies, Inc., date unknown, 4 pages in length.
*DM	Brochure, "Surveyor ALS (Auto Scanning Laser System)," MDL Technologies, Inc., date unknown, 3 pages in length.
*DN	M. Scherer, "Uni-Scan: A. System for Automatic Architectural Surveying," date unknown, pp. 285-284c.
*D0	Brochure, "Cyberware Color 3D Digitizer," date unknown, 7 pages in length.
*DP	Brochure; "3D Laser Digitizing Systems," Laser Design, Inc., date unknown, 5 pages in length.
*DQ	Brochure, "Access problems? Prism Problems? Gota do it fast?," Cubic Precision, date unknown, 5 pages in length.
*DR	F.J.M. Schmitt et al., "An Adaptive Subdivision Method for Surface-Fitting from Sampled Data," ACM-SIGGRAPH-1986,
	pp. 179-188.
*DS	I.D. Foley et al., "Computer Graphics - Principles and Practice," Addison-Wesley Publishing Company, 1996, pp. 471-

Examiner	F	· Nors	m	Date Considered	9/1/05				
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if									
not in conformance and not considered. Include copy of this form with next communication to applicant.									

